Estimation of HIV Prevalence among Women in Kenya in the Presence of Mediation Using Latent Trait Analysis

Abstract

Introduction: Estimating prevalence in cause-effect relationships where the mediator variables are assumed to be latent is not usually easy. However, the use of proper indicators and statistical model can make the measurement and use of such constructs easy. Methods: Structural Equation Modeling makes it possible to analyze simultaneously both the relationship between the latent variable and the links between the latent variable and their indicators. The 2018 Kenya AIDS Indicator Survey data was used to validate the model developed. The maximum likelihood was used to estimate the model parameters. The findings of the study were, there is a relationship between education attainment and knowledge /awareness of HIV/AIDS. Results: The results further shows that education levels are not associated with HIV prevalence after controlling for a number of socio-demographic characteristics and behavioral factors. Conclusion: These findings can inform policy makers in formulation of appropriate HIV/AIDS management (policies) and intervention strategies aimed at reducing HIV/AIDS prevalence that has remained a challenge in many developing countries.

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